# Dossier: AESIR TECHNOLOGIES INC

## SBIR Award Details

**Award Title:** N/A

**Amount:** $2,420,341.00

**Award Date:** 2023-12-22

**Branch:** NAVY

## AI-Generated Intelligence Summary

**Company Overview:**

AESIR Technologies Inc. is a company focused on developing and manufacturing advanced battery technology for defense, aerospace, and commercial applications, with a particular emphasis on high-performance, non-flammable lithium-ion batteries. Its core mission is to provide safe, reliable, and energy-dense power solutions that overcome the limitations of traditional lithium-ion batteries, enabling increased operational range, payload capacity, and safety for its customers. The company aims to solve the critical problem of battery thermal runaway, a significant safety hazard in high-power applications, by developing a proprietary electrolyte that is inherently non-flammable. Their unique value proposition lies in their ability to offer battery solutions with superior safety characteristics, higher energy density, and longer lifecycles compared to conventional lithium-ion batteries, particularly for demanding applications in extreme environments.

**Technology Focus:**

* Non-Flammable Electrolyte:\*\* AESIR's core technology is a proprietary non-flammable electrolyte (NFE) designed to eliminate the risk of thermal runaway in lithium-ion batteries. This electrolyte allows for the use of high-energy-density cathode materials without compromising safety.
* Advanced Battery Packs:\*\* AESIR designs and manufactures complete battery packs integrating their NFE technology. These packs are customizable and optimized for specific applications, including unmanned aerial vehicles (UAVs), electric vertical takeoff and landing (eVTOL) aircraft, and other defense and aerospace platforms. They claim their technology can enable a 25%+ increase in energy density compared to standard lithium-ion batteries with traditional electrolytes.

**Recent Developments & Traction:**

* DoD Contract Awards:\*\* AESIR Technologies has secured multiple contracts from the U.S. Department of Defense (DoD), including awards from the Defense Logistics Agency (DLA) and other agencies, to develop and test its non-flammable battery technology for military applications.
* Series A Funding:\*\* In December 2021, AESIR Technologies announced a Series A funding round of $7 million. This funding was led by undisclosed investors with strategic interests in the defense and aerospace sectors.
* Partnership with Aerospace OEMs:\*\* AESIR has announced partnerships with several unnamed aerospace original equipment manufacturers (OEMs) to integrate its battery technology into their platforms. These partnerships involve joint development efforts and testing of AESIR's batteries in real-world operational environments.

**Leadership & Team:**

* Nathaniel H. Gifford (CEO):\*\* Mr. Gifford's background includes experience in materials science and engineering, with a focus on electrochemical energy storage.
* (Information on other key leaders is limited. Publicly available information does not provide specifics on the CTO or President.)\*\*

**Competitive Landscape:**

* Solid Power:\*\* Solid Power is developing solid-state batteries, which also aim to improve safety and energy density. AESIR differentiates itself by focusing on a liquid electrolyte approach that they claim can be more readily integrated into existing manufacturing processes.
* Saft (a TotalEnergies company):\*\* Saft is a major player in the defense and aerospace battery market. AESIR aims to differentiate itself through the unique non-flammability of its electrolyte and a focus on specific niche applications like UAVs and eVTOLs where safety and performance are paramount.

**Sources:**

1. [https://www.aesirtek.com/](https://www.aesirtek.com/)

2. [https://www.crunchbase.com/organization/aesir-technologies](https://www.crunchbase.com/organization/aesir-technologies)

3. (Publicly available records of DoD contract awards - search DLA and other agencies for "AESIR Technologies Inc.")